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Unit Objectives

(1) Identify the difference between autosomes and sex chromosomes. **Comprehension**

(2) Recite the knowledge of the human genome on a basic level such as how much of the genome is just “junk” DNA, how many chromosomes humans have, and how large a typical gene is. **Comprehension**

(3) Interpret a karotype picture. **Application**

(4) Identify if the karotype is of a male or female. **Comprehension**

(5) Explain the difference between dominance, recessive, and codominance. **Comprehension**

(6) Explain all the differences and similarities among human blood types including ABO blood with or without Rh factor. **Comprehension**

(7) Explain how each of these blood types is inherited using genes from the mother and father. **Comprehension**

(8) Identify how and why a heterozygote has the highest level of resistance to malaria. **Comprehension**

(9) Formulate a connection between the parts of the world affected by malaria and where the highest rates of sickle cell are found. **Synthesis**

(10) Compare the differences between traits controlled by one gene and traits governed by many genes as well as those influenced by environment. **Analysis**

(11) Understand the causes, symptoms, and physical disabilities of Down Syndrome. **Knowledge**

(12) Explain X chromosome inactivation. **Comprehension**

(13) Examine different Sex Chromosome Disorders and their causes. **Comprehension**

(14) Understand the cause, symptoms, and effects of Klinefelter’s Syndrome. **Knowledge**

(15) Understand the cause, symptoms, and effects of Turner’s Syndrome. **Knowledge**

(16) Investigate the different ways scientists are treating diseases using gene therapy. **Comprehension**

(17) Discuss theoretical treatments for previously learned genetic diseases. **Comprehension**

(18) Describe what the genetic disease phenylketonuria is and what type of allele causes it. **Comprehension**

(19) Describe the genetic disease known as Huntington’s and what type of allele causes it. **Comprehension**

(20) Explain nondisjuction. **Comprehension**

(21) Debate the ethical issues of genetic research using logical, thought out responses. **Analysis**